RUTGERS
University Human Resources

Topics:

- Essential elements in planning
- Planning tools: What is a work breakdown structure (WBS)?
- Examine a sample Gantt chart
- Learn about a forced-pair comparison tool to select priorities

PLANNING AND SCHEDULING TOOLS

Tool Kit

Why Is Planning Important?

Planning is a process of organizing your productive resources—time, money, people, equipment, materials, information—before you begin an assignment or a project.

√ Planning creates a "road map" that will direct and coordinate all that needs to be accomplished to implement a project or carry out an assignment.

√ If you begin a project without understanding the resources you need and how to organize them, you run a high risk of failure.

√ Planning *prevents* problems, so you can spend your working hours on productive activities and not just putting out fires.

√ Planning can make your work group more productive by anticipating potential roadblocks and taking action to deal with them in advance. It helps you stay on top of the situation.

√ Achieving your goals successfully depends heavily on your ability to plan and schedule your work.

Elements of Effective Planning and Scheduling

Five Elements of Effective Planning are:

- Define the goal
- Identify the steps
- Determine the schedule
- Establish checkpoints
- Assign the resources

- ***Involving others in the planning process is critical.***
- ***Don't plan and schedule in a vacuum.***

Many tools exist to help you with these tasks. A **Work Breakdown Structure (WBS)** is used to identify major elements, tasks and subtasks of a project. Defining the key components of a project will help you identify resource requirements and create a budget.

A **Gantt chart** (named after its creator, Henry Gantt), is used to schedule work, establish checkpoints and monitor progress.

Work Responsibility Chart is used to assign work responsibilities to project team members.

Inside This Issue

Tool 1- Work Breakdown Structure (WBS)

There are two common formats for a Work Breakdown Structure: an outline format and a tree diagram format. Both are illustrated on this page.

What It Is

A method for breaking down the work or project into major elements, tasks and subtasks.

When It Is Used

It's used to define the key components of the project, monitor progress and assess accomplishment.

How to Develop a Work Breakdown Structure

1. Break the work down into *major elements* or large categories of work.
2. Identify the *tasks* within those elements; that is, smaller "chunks" of work that comprise the element.
3. Identify the *subtasks* to accomplish each task.

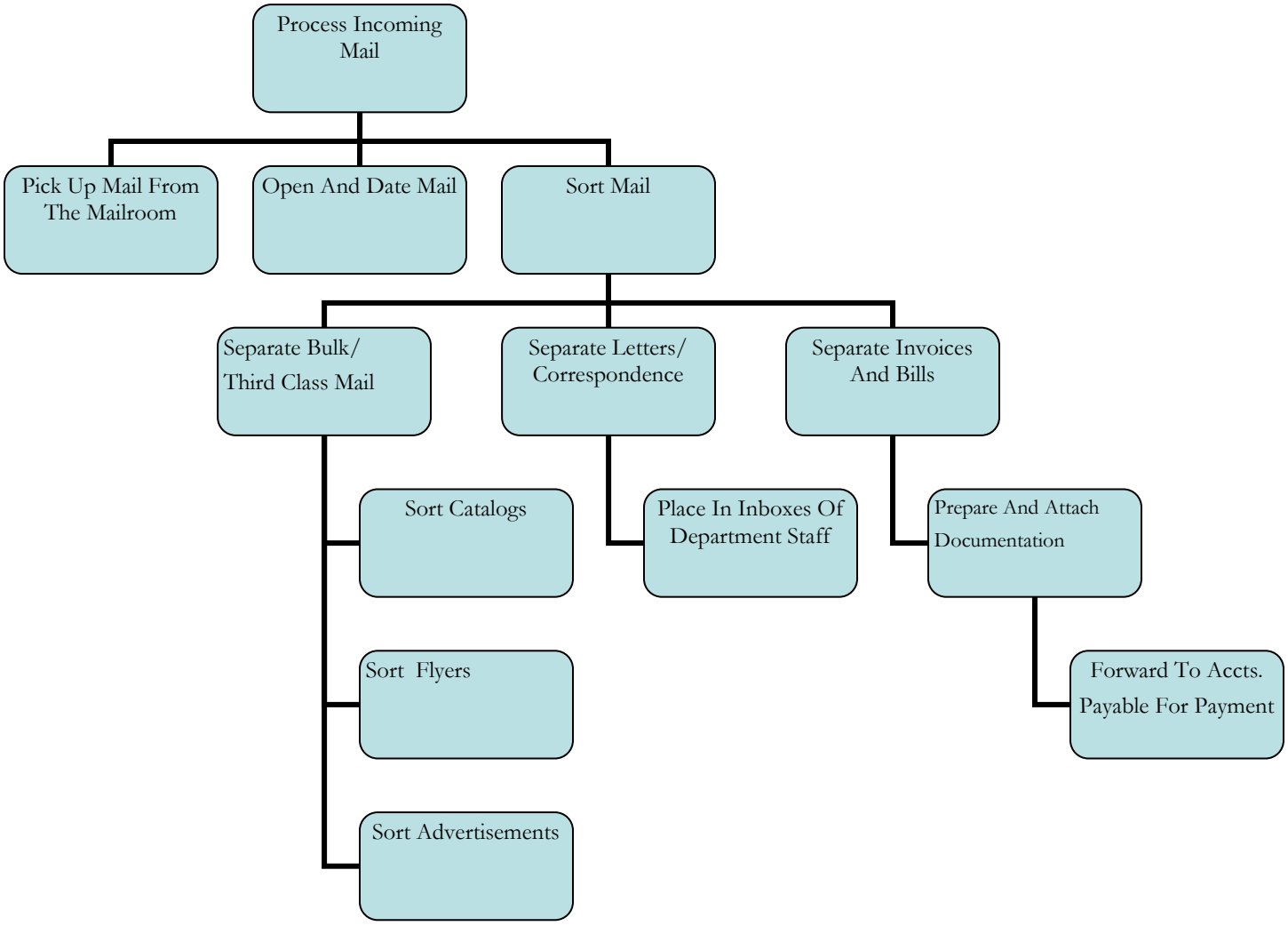
Once you have clearly defined the subtasks, you can more accurately anticipate, estimate and allocate your resources as well as schedule the work.

Indented Outline WBS

Project Name

1. Major Work Element
   - 1.1 Task
     - 1.1.1 Subtask
   - 1.2 Task
     - 1.2.1 Subtask
     - 1.2.2 Subtask
2. Major Work Element
   - 2.1. Task
     - 2.1.1 Subtask
     - 2.1.2 Subtask
     - 2.1.3 Subtask

Example of Tree Diagram WBS: Processing Mail



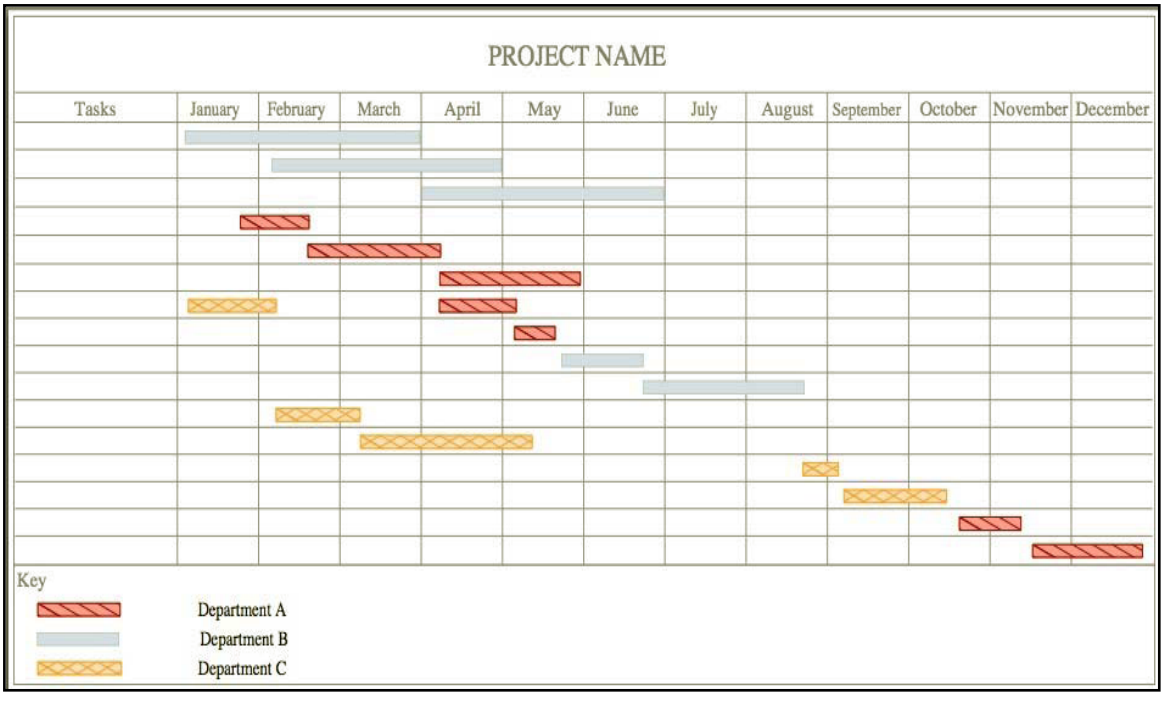
Example of Work Responsibility Chart: Department Dress Code Project

Task	Subtask	Employee Responsible P= Primary Role, S= Supporting role
Department Policy Drafted	Review samples of other policies	P-Jerry, S-Elena
	• Get input from staff committee	P-Jerry
	• Ensure compliance	Harry (Legal Mgt.)
	• Write policy	P-Jerry, S-Elena
Policy Reviewed and Approved	• Have document signed/dated by Department Head	P-Jerry and management team
Policy Presented	• Present and explain policy at monthly department meeting	P-Jerry and senior manager
	• Provide copies to employees	P-Department Managers
Disseminate Policy	• Include policy in new employee orientation manual	P-Sarah

A Work Responsibility Chart Is used at the start of a project to identify who is responsible for accomplishing various tasks and subtasks.

Gantt Chart

A **Gantt Chart** (also known as a bar chart or milestone chart) is a technique for plotting tasks and subtasks for a project on a timeline to depict when activities begin and end. It identifies the sequence of events, how long each task will take and what activities can or need to occur simultaneously. List tasks or subtasks down the left side of the page and timelines horizontally. Time can be reflected in hours, days, weeks or months.



Forced-Pair Comparisons to Select Priorities

1 - 2							
1 - 3	2 - 3						
1 - 4	2 - 4	3 - 4					
1 - 5	2 - 5	3 - 5	4 - 5				
1 - 6	2 - 6	3 - 6	4 - 6	5 - 6			
1 - 7	2 - 7	3 - 7	4 - 7	5 - 7	6 - 7		
1 - 8	2 - 8	3 - 8	4 - 8	5 - 8	6 - 8	7 - 8	
ITEM SCORE							
1	2	3	4	5	6	7	8

1= Project 1 (or Task 1)

2= Project 2 (or Task 2)

3= Project 3 (or Task 3)

4= Project 4 (or Task 4)

5= Project 5 (or Task 5)

6= Project 6 (or Task 6)

7= Project 7 (or Task 7)

8= Project 8 (or Task 8)

* Use this grid to select among competing priorities. Circle the one number of the two in each box, that represents the **more** preferred of the two projects or tasks. You must make a choice and circle only **one** number per cell.
* Count the number of times each item was circled and enter its score on the bottom line of the grid under "Item Score".
* Rank order the list of item scores. The item with the highest score is number 1. The item with the second highest score is number 2 and so on. In case of a tie, you may do a mini-grid for the tied items.
* This simple tool allows you to rank order candidate projects, tasks (or anything really)!

Resources for Further Reading

DeMarco, Tom and Tim Lister. *Peopleware: Productive Projects and Teams.* 2nd edition. New York: Dorset House Publishing, 1999

Greer, Michael. *The Manager's Pocket Guide to Project Management.* Amherst, MA: HRD Press, 1999

Haynes, Marion E. *Project Management.* Menlo Park, CA: Crisp Publications , 1989

Martin, Paula, and Karen Tate. *Getting Started in Project Management.* New York: Wiley, 2001

Wysocki, Robert K., et al. *Effective Project Management.* New York: Wiley, 1995

Activities During the Four Phases of a Project

Defining - Phase 1
Determine objectives
Define scope
Select strategy

Planning - Phase 2
Write specifications
Develop schedule
Develop budget

Implementing - Phase 3
Monitor performance
Take corrective action
Provide feedback
Resolve differences

Completing - Phase 4
Deliver output
Wrap up the details
Evaluate the experience

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